Inside-Out Paradigm© / The Phrenic Circuit, Part 2 Dale G. Alexander Ph.D. L.M.T.
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The Phrenic Circuit provides us with a template to conceive of how the body discharges its tensions by endeavoring to distribute them as widely as possible. These tensions originate internally within the sacs and tubes of organ systems of the body and are eventually expressed, externally, via the musculoskeletal system (1). In the first article it was proposed that most chronic problems related to the cranium, neck, upper back, shoulders, arms, elbows, and hands have consistently shown an association to the relationships of the phrenic nerves (2). This article will offer additional anatomical & perceptual relationships for your consideration.

Incorporating some of the feedback from the first article, allow me to note that none of these ideas or relationships should be construed to be provable facts at this time. I apply what produces results for my clients. I am not lobbying for the use of any specific touch technique. Rather, it is my clear intention to invite the reader "inside" the body and to introduce them to the power of perception and intention as part of the process in transformational healing. My writings emerge from a distillation of multidisciplinary theories of philosophical, perceptual, energetic, physiological, and anatomical relationships. Additional feedback to the first article reflected that practitioners who actually applied the notions described therein were rewarded with additional capacity to assist their clients.

I would propose that we all release ourselves from operating "within" or, attempting "to prove" absolute cause & effect relationships. Rather, let us embrace the associational & relational correlations that have shown themselves to be repeatedly helpful. Last year's Noble Science Award went to two dedicated physicians who had been rebuffed by the medical establishment for over 30 years in their proposed notion that the bacteria, helicobacter pylori, is highly correlated to the formation of gastric & duodenum ulcers.

In my experience, chronic problems most often involve multiple sources feeding into a recurring somatic complaint. Obviously physical trauma or repetitive wear & tear of physical activity are slices of the pie. However, when one examines human consciousness in its relationship to anatomy & physiology, many additional slices of the pie have shown themselves to be relevant.

These articles are an exploration of discovering the treasure within each of our clients. What has made the biggest difference for me, as a practitioner, is to place my perception and intention inside of the human body "feeling with my eyes and seeing with my hands" and, to expand my perception to include the dimensions of sacred and energetic relationships. I also endeavor to bring to the table simple human common sense.

Let's briefly review. The phrenic nerves originate within the spinal cord from C3-4-5. This overlaps the origin of the brachial plexus nerves from C4 - T2. This relationship within the spinal cord suggests a "shared circuitry". It is my postulation that the body uses this overlapping within its neural net to distribute the sensory tensions of all the organs and musculoskeletal structures that have even remote connections to this portion of the spinal cord.

"Everything is connected to everything", were the words of a Chiropractor who was invited as a guest speaker in my original advanced training with Bill Williams Ph.D. & Ellen Gregory Ph.D. at their Soma Neuromuscular Integration Institute in 1980(3). This phrase made an imprint, which resonates even to this day.

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Last year's flooding of Hurricane Wilma in the Florida Keys made this even more viscerally clear to me. Just as water finds its way into, around, under, or, over whatever it can, it has been my experience in working with chronic problems that the electrochemical and electro-magnetic energy of the body can use any portion of the human neural net in its attempt to distribute strain and re-establish some kind of homeostasis. And, the punch line is that there appears to exist fairly specific energetic and neural relationships that the body uses more frequently. These are the treasure maps for us to follow and improve upon in our collective intention to assist our clients. It has been my clinical experience that the relationships of the Phrenic Circuit are one of these treasure maps.

Let us dive deeper into a review of the basic anatomy. The phrenic nerves are the sole "motor supply" to the diaphragm muscle. There is a separate right and left phrenic nerve each, with its own excursion through the thoracic cavity vitalizing respectively the right and left hemi-diaphragms. Along their descent through the thorax the phrenic nerves supply sensory branches to the pericardial sac of the heart, the mediastinal/pleural sacs of the lungs, and to the subclavius muscles. Once below the diaphragm muscle, they communicate with the celiac plexus through a common phrenic ganglion. Other sensory relationships routinely identified and inferred include; the peritoneal sac, the gall bladder, the capsule and the hepatic & falciform ligaments of the liver, the pancreas, both sides of the esophagus, and the adrenals (4). Once, tied into the celiac plexuses, all the organs below the diaphragm potentially can use this sensory channel to express their tensions.

Old time anatomists commonly described the celiac ganglion & plexus as the "solar plexus" and, as an abdominal brain. The point here is that the sensory supply to the phrenic nerves is an extremely open system, not a closed neural loop and one that intimately shares the spinal cord circuitry of the brachial plexus that provides the neurocirculatory supply for the upper extremities. The Phrenic Circuit does not create anything physiologically, it is the conduit for the expression for deeper tensions to be expressed.

I propose that the Phrenic Circuit functions similar to the "canary in the coal mine". This is a phrase from the turn of the century when coal miners would take canaries in cages down into the mineshafts with them to create an early warning system that their safety was in jeopardy from a build-up of carbon monoxide or natural gas leakage. When the canaries stopped singing it was as a warning to the miners to vacate the underground shaft.

In a similar fashion the internal organs of the body seek to let us know when their stress levels have reached a threshold of importance. It is like the student who gyrates & excitedly waves their hand in the back of the class endeavoring to be recognized. The "inside-is-signaling-through-to-the-outside" that something needs attention. The inside is where our consciousness lives and grows or doesn't, where the biological tenaciousness of the "mind" refuses to operate in present time (5).

In the early stages, "that something important," usually relates to our emotional or energetic experience in relation to someone or, to a future or past event. We call this "stress." However, the "canary" can also be signaling that dysfunction or dis-ease has begun to progress toward pathology. This suggests that when a symptom of the head, neck, shoulders, arms or hands "just won't go away," it is appropriate for us to refer our clients for a medical check-up.

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Currently, most of my clients have been to physicians before contacting me. For a general Massage Therapist I would recommend a “3 session rule”. If you have been unable to assist within three sessions at least a 50% reduction in their somatic intensity and the profile of their complaints remains unchanged, then send them on to a physician. The following description of “referral patterns” may offer additional guidance.

Let’s examine the left and right-sided relationships that are reflected through the theorized Phrenic Circuit. According to Dr. William Silen’s compilation of the experience of surgeons in Cope’s Early Diagnosis of the Acute Abdoment, ‘the significance of constant or intermittent pain in the region of the fourth cervical nerve (the principle root of the phrenic nerves) is still sometimes either not understood or seriously neglected. Pain on top of the right shoulder may be the only signal that an inarticulate liver abscess, threatening to perforate the diaphragm, may be able to produce’(6). Dr. Silen enumerates a host of acute and potentially life-threatening ailments which we do not routinely see in our offices but that, I propose, often use the Phrenic Circuit in their attempts to be noticed in the early and middle stages of their development.

According to Dr. Jean-Pierre Barral, D.O., the developer of the Visceral Manipulation approach, the gall-bladder, liver and the right lung reflect their tensions via the right upper extremity whereas the stomach, pancreas, spleen, heart, and left lung reflect their tensions into the left upper extremity. In addition, his many years of clinical experience correlates the left side of the neck most consistently to gall bladder difficulties and the right side of the neck to liver problems (7).

It has been my own clinical experience that early warning signals of diverticulitis attacks often use these upper extremity and cervical referral patterns as well, with the ascending colon referring into the right shoulder while the descending colon usually refers into the left. I have also experienced kidney problems to use this circuitry, especially long-standing sub-clinical kidney infections & clients on the verge of a kidney stone becoming lodged in one of the ureters. However, most commonly in my experience, either kidney will refer its chronic tensions into the low back, the inguinal region and/or, into the same-sided hip and most frequently the knee.

Additionally, there are presenting anomalies that switch sides, especially duodenal ulcers may do this or abdominal adhesions that may refer via the pancreatic sensory supply through the phrenic / brachial plexus overlap to the left shoulder or from the transverse colon that is a literal connector between both sides.

I personally experienced the adhesion example with a female client who exhibited a confusing switching back and forth between the right and left shoulder and neck symptoms, only to discover after an exploratory laparoscopic surgery that she had a 2-centimeter adhesion between the duodenum and the abdominal wall that was referring through both sides of the circuit. Her presenting problem was a constant state of anxiety.

Another case study may further serve to illuminate these relationships. About 17 years ago, while still studying with Dr. Barral, I was working with a client whose right shoulder began to freeze, i.e., progressively began to lose range of motion until he had only about 20 degrees of abduction remaining. He had lost functional use of his right arm for most activities of daily living including his ability to work with his computer. Not good, as he was and still is, a publisher. He

had been diagnosed as having a frozen shoulder and his orthopedist recommended that he have his shoulder surgically broken to re-mobilize it.

This was a regular client who would see me about twice a month so I had a perspective from his somatic onset and followed it through to its resolution. I had been consistently using Connective Tissue, Muscle Energy, & CranioSacral techniques to mobilize the range of motion of his shoulder along with the Visceral touch techniques that I had learned from Dr. Barral to mobilize his gall bladder, liver and to assist in clearing his common bile duct. Nothing worked, but all that I had learned about the progression of gall bladder difficulties pointed to it as a bigger slice of the pie.

I begged my client to see his physician and have an ultrasound done of his gall bladder. I have no problem pleading with my clients to seek medical consultation. The test showed that he had 2 rather large gallstones, so big that they were unlikely to ever find their way into the common bile duct. His physician told him that removing them was the best course of action but that he could live with them as they were. He selected to live with them. Within a month of his ultrasound and discussion with his physician we were able to fully re-mobilize his shoulder.

From the beginning until the eventual resolution & restoration of his shoulder motion took approximately 6 months. Obviously, I had yet to create the 3 session rule mentioned earlier, however, here was evidence that the body can get used to just about “damn near anything.” This same case study will be cited and explored further in my next article. The resolution of a presenting somatic complaint does not mean that ‘living with something” will not affect a client’s quality of life or won’t possibly contribute to the progression of emerging pathology.

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Now, let’s explore the dimension of “sidedness” from another perspective. According to Lansing Gresham’s, “The Body’s Map of Consciousness®”, the left side of the human body for both genders, reflects our composite of experiences with females while the right side of our bodies reflects our composite of experiences with males (8). One of the most defining elements of our human experience is our gender, how we feel about our own and how we feel about the “other”.

For example, when a male client presents with chronic right-sided complaints I become curious as to how he feels about himself as a male and the nature of his relationships with his father, brothers or other males in his life. This also includes the absence of male family members through divorce / custody battles, geographic dislocation, or death.

In contrast, when a female presents with a chronic history of right-sided complaints I expand to consider not only the possibility of conflicts/trauma associated with males in her life but also her feelings and the degree of permission she has for assertive expression of her wants and needs.

And, of course for both sexes, there is often the wound of not being the gender expected or wanted by one or both parents.

Carl Jung articulated the notion that within females & males, there exists conjointly an “anima” and an “animus”, both a receptive and a nurturing side and the capacity for confidence in

expressing one's competence, skills, & abilities (9). We are all challenged to integrate these elements within the process of identity formation throughout the course of our lives, as are our clients.

During sessions with clients, it is my willingness to perceive that anything is possible without any preconceptions that allows a quality of touch through which a client may access my library of knowledge and experience. It involves perceptually accessing a space of "not knowing" where clarity through touch may emerge "from within the client", signaling to me the many possible variables that are relevant to them.

As human beings, we are complex. As we turn the facets of the diamond there are many reflections. This article can only serve but to introduce you to some of them. The next time one of your clients speaks to you about chronic problem(s) with their right or left upper extremity or neck, please consider that one of the streams feeding into the Phrenic Circuit may be a contributing factor, that some aspect of the person's sense of self is seeking expression and acknowledgement. Also, please consider exploring the references listed below.

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References:

1. "Healing From the Core", Massage Today, Parts 1 & 2 in the Sept. & Oct. 2004 issues, Vol. 04, Issue 09 and Vol. 04, Issue 10, "Equalizing the Pressure", Massage Today, March 2005, Vol. 05, Issue 03, & "Survival Vs. Quality of Life", Massage Today Part I and Part II November 2005, Volume 05, Issue 11 & December 2005, Volume 05, Issue 12.

2. The Phrenic Circuit, Dale G. Alexander Ph.D. L.M.T., Massage Today, June 2006, Vol. 06, Issue 06.

3. The Soma Institute is now located at 730 Gravity Way in Buckley, Wash. 9832, Karen Bolesky M.A & Marcia Nolte L.M.P (www.soma-institute.org).

4. Gray's Anatomy / pgs. 1128-31, Williams, Warwick, Dyson, and Bannister, Churchill Livingstone, 1989 and course notes with Dr. Jean-Pierre Barral D.O., 1987 – 1993, reflecting his anatomical study with European anatomists.

5. Lansing Barrett Gresham & Dale G. Alexander, "Engage Your Brain / Move Your Mind", Massage Today, February, 2006, Volume 06, Issue 02, "The Mind is the Source of our Stress", Massage Today, April 2006, Vol. 6, Issue 4, & "The Present Meaning of Life", Massage Today, October, 2006, Volume 06, Issue 10.

6. Cope's Early Diagnosis of the Acute Abdomen, William Silen M.D., 2000, Oxford University Press (pgs. 8 -12 & 108 -118 and beyond).

7. Course notes with Dr. Jean Pierre Barral D.O., 1987 – 1993, and Visceral Manipulation I & II, The Thorax and, Trauma, Jean-Pierre Barral D.O., Eastland Press, 1988. Visceral Manipulation Courses based on Dr. Barral's pioneering work are taught through the Upledger Institute. (www.upledger.com)

8. Lansing Barrett Gresham & Julie J. Nichols, The Body's Map of Consciousness®, Volume I: Movement and Ask Your Body Anything, NoneTooSoonPublishing, 2002. (www.inawarenss.com)

9. Carl Jung M.D., Man and his Symbols, Aldus Books Limited, London, 1964.